1. (Amended) A process for the production of lower aliphatic esters which comprises reacting a lower olefin with a saturated tower aliphatic monocarboxylic acid in the vapour phase in the presence of a heteropolyacid catalyst, wherein a) the reaction is carried out in a plurality of reactors set up in series, and b) the feedstock is rendered substantially free of metallic or metal compound impurities prior to being brought into contact with the heteropolyacid catalyst.